Please amend the Application as follows.

Amendments to the claims:

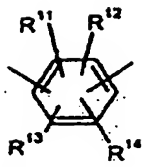
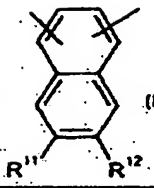
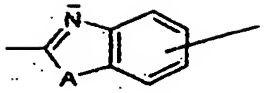
The following claim listing will replace all previous listings in the application:

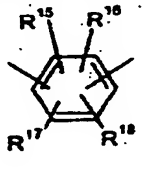
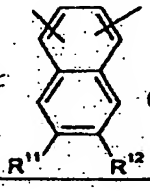
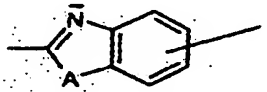
1. (Currently amended) Process for the optical writing of optically readable digital information in a two-dimensional extended storage medium, characterised in that on account of the optical writing process the surface topography of the storage medium is suitable and sufficiently modified for the optical reading process, and more specifically without substantial portions of the detected signal resulting from a degradation and/or a physical or chemical modification of the areas adjacent to the absorber layer,

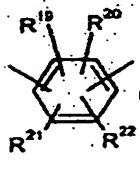
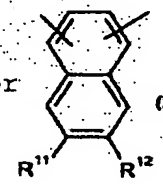
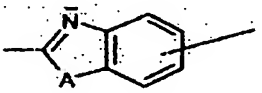
wherein the writing is carried out using laser light with an energy density of a light pulse between 10 mJ/cm^2 and 100 mJ/cm^2 and with an intensity of between 0.15 mW and 100 mW, and

wherein as light-active polymer films side-chain polymers, optionally block polymers and/or graft polymers are used, to which dyes are bound as side chains via a STQ-spacer (formula I) and dimensionally anisotropic groups are likewise bound via a STQ-spacer (formula II), wherein formula I has the structure

$$—S^1—T^1—Q^1—X^{1'}—Ar^1—(—X^{2'}—Ar^2—)_y—(—X^{3'}—Ar^3—)_z—X^4 \qquad (I)$$

where -Ar¹- =  (III) or  (IV) or  (V)

where -Ar²- =  (VI) or  (IV) or  (V)

where -Ar³- =  (VII) or  (IV) or  (V)

in which

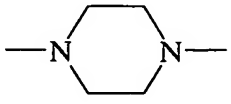
y denotes 1 or 2,

z denotes 0, 1 or 2 and

$X^{2'}$ and Ar^2 and/or $X^{3'}$ and Ar^3 may have different meanings, if y and/or z denote 2,

A denotes O, S or N-C_1- to C_4-alkyl,

Q^1 denotes -O-, -S-, -(N-R^5)-, -C(R^6R^7)$_p$-, -(C=O)-, -(O-CO)-, -(NR^5-CO)-, -(SO_2)-, -(O-SO_2)-, -(NR^5-SO_2-)-, -(C=NR^8)-, -(CNR^8-NR^5)-, -O-C_6H_5-COO- or a bivalent radical of the formula



T^1 denotes $-(CH_2)_p-$, wherein the chain may be interrupted by -O-, $-NR^9-$, or $-OSiR^{10}_2O-$ and may be substituted by methyl,

S^1 denotes a direct bond, -O-, -S- or $-NR^9-$,

P denotes an integer from 2 to 12, preferably 2 to 8, in particular 2 to 4,

R^9 denotes hydrogen, methyl, ethyl, or propyl ,

R^{10} denotes methyl or ethyl,

R^{11} to R^{22} independently of one another denote hydrogen or a non-ionic substituent,

X^4 denotes hydrogen, halogen, cyano, nitro, CF_3, CCl_3, $-COO-C_1-$ to C_4- alkyl or $X^{4'}-R^4$,

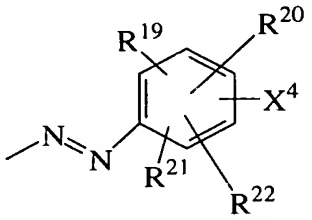
$X^{1'}$, $X^{2'}$ $X^{3'}$ and $X^{4'}$ denote a direct bond, -O-, -S-, $-(N-R^5)-$, $-C(R^6R^7)-$, $-(C=O)-$, $-(CO-O)-$, $-(CO-NR^5)-$, $-(SO_2)-$, $-(SO_2-O)-$, $(SO_2-NR^5)-$, or $-(CNR^8-NR^5)-$ and

$X^{2'}$ and $X^{3'}$ may in addition denote $-(C=NR^8)-$, $-(N=N)-$ and at least one of the groups $X^{2'}$or $X^{3'}$ denotes -N=N-,

R^4, R^5, R^6, R^7 and R^8 independently of one another denote hydrogen, C_1- to C_4- alkyl, or C_6- to $C_{10}-$aryl and

R^4 and R^5 in addition independently of one another denote C_1- to $C_{20}-$alkyl-(C=O)-, C_3- to $C_{10}-$cycloalkyl-(C=O)-, C_2- to $C_{20}-$alkenyl-(C=O)-, C_6- to $C_{10}-$aryl-(C=O), C_1- to $C_{20}-$alkyl-$(SO_2)-$, C_3- to $C_{10}-$cycloalkyl-(SO_2), C_2- to $C_{20}-$alkenyl-$(SO_2)-$ or C_6- to $C_{10}-$aryl-(SO_2), wherein

by the term non-ionic substituents are understood halogen, cyano, nitro, C_1- to C_{20}-alkyl, C_1- to C_{20}-alkoxy, phenoxy, C_3- to C_{10}-cycloalkyl, C_2- to C_{20}-alkenyl, C_6- to C_{10}-aryl, C_1- to C_{20}-alkyl-(C=O)-, C_6- to C_{10}-aryl-(C=O)-, C_1- to C_{20}-alkyl-(SO_2)-, C_1- C_{20}-alkyl-(C=O)-O-, C_1- to C_{20}-alkyl-(C=O)-NH-, C_6- to C_{10}-aryl-(C=O)-NH-, C_1- to C_{20}-alkyl-O-(C=O)-, C_1- to C_{20}-alkyl-NH-(C=O)-, C_6 to C_{10}-aryl-NH-(C=O)- or a radical of the formula



(VIII)

and the alkyl, cycloalkyl, alkenyl and aryl radicals in turn may be substituted by up to 3 radicals from the group comprising halogen, cyano, nitro, C_1- to C_{20}-alkyl, C_1- to C_{20}-alkoxy, C_3- to C_{10}-cycloalkyl, C_2- to C_{20}-alkenyl or C_6- to C_{10}-aryl, and the alkyl and alkenyl radicals may be straight-chain or branched, and

by the term halogen is understood fluorine, chlorine, bromine and iodine, in particular fluorine and chlorine,

and formula II is described by

$$—S^1—T^1—Q^1—X^{1'}—Ar^1—(—X^{2'}—Ar^2—)_y—(—X^{3'}—Ar^3—)_z—X^4 \qquad (I)$$

wherein the above substituent definitions (formula I) are also valid for formula II, with the proviso that none of the groups $X^{2'}$ or $X^{3'}$ may denote -N=N- and R^{11} to R^{22} may not denote a radical of the formula (VIII).

2. (Original) Process according to claim 1, characterised in that polymer films are used as storage medium.

3. (Original) Process according to claim 1, characterised in that a multi-layer disk is used as storage medium, which comprises at least one mechanically sufficiently stable substrate, at least one polymer film forming the light-active layer, and a covering layer.

4. (Previously presented) Process according to Claim 1, in which a storage medium is used and the light-active layer predominantly comprises oligomers and/or polymers containing dyes that orientate under the action of light, preferably amorphous polymers, particularly preferably side group polymers.

5. (Currently amended) Process according to Claim ~~1~~3, characterised in that a polymer film whose mass density is closely matched to that of the light-active layer is used as covering layer.

6. (Canceled)

7. (Currently amended) Process according to claim ~~6~~1, characterised in that the dye side groups I are used, wherein substituents and formulae have the meanings defined in claim ~~6~~1, and in addition

Ar^1 denotes a radical of the formula (III),

Ar^2 denotes a radical of the formula (VI),

Ar^3 denotes a radical of the formula (VII) or (V),

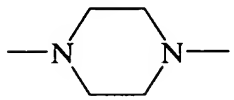
y denotes 1 or 2,

z denotes 0, 1 or 2 and

$X^{2'}$ and Ar^2 and $X^{3'}$ and Ar^3 may have different meanings if y and/or z denote 2,

A denotes O or S,

Q^1 ~~and Q^2 independently of one another~~ denotes -O-, -(N-R^5)-, -(C=O)-, -(O-CO)-, -(NR^5-CO)-, -(SO_2)-, -(O-SO_2)-, -(NR^5-SO_2-)-, -O-C_6H_5-COO- or a bivalent radical of the formula



T^1 ~~and T^2 independently of one another~~ denotes -$(CH_2)_p$- wherein the chain may be interrupted by -O-, -NR^9-, or -$OSiR^{10}{}_2O$- and may be substituted by methyl,

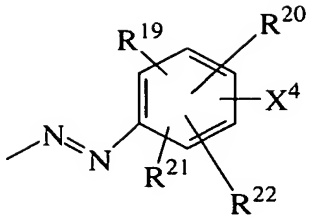
S^1 ~~and S^2 independently of one another~~ denotes a direct bond, -O-, -S-, or -NR^9-

p denotes an integer from 2 to 8, in particular 2 to 4,

R^9 denotes hydrogen, methyl or ethyl,

R^{10} denotes methyl or ethyl,

R^{11} to R^{22} independently of one another denote hydrogen, halogen, cyano, nitro, C_1- to C_{20}-alkyl, C_1- to C_{20}-alkoxy, phenoxy, C_3- to C_{10}-cycloalkyl, C_2- to C_{20}-alkenyl, C_6- to C_{10}-aryl, C_1- to C_{20}-alkyl-(C=O)-, C_6- to C_{10}-aryl-(C=O)-, C_1- to C_{20}-alkyl-(SO_2)-, C_1- to C_{20}-alkyl-(C=O)-O-, C_1- to C_{20}-alkyl-(C=O)-NH-, C_6- to C_{10}-aryl-(C=O)-NH-, C_1- to C_{20}-alkyl-O-(C=O)-, C_1- to C_{20}-alkyl-NH-(C=O)-, C_6- to C_{10}-aryl-NH-(C=O)- or a radical of the formula



(VIII)

X^4 denotes hydrogen, halogen, cyano, nitro, CF_3, CCl_3, -COO-C_1 to C_4-alkyl or $X^{4'}$-R^4,

$X^{1'}$, $X^{2'}$ $X^{3'}$ and $X^{4'}$ denote a direct bond, -O-, -(N-R^5)-, -C(R^6R^7)-, -(C=O)-, -(CO-O)-, -(CO-NR^5)-, -(SO_2)- or (SO_2-O)- and

$X^{2'}$ and $X^{3'}$ may in addition denote -(N=N)- and at least one of the groups $X^{2'}$ or $X^{3'}$ denotes -N=N-,

R^4, R^5, R^6, R^7 and R^8 independently of one another denote hydrogen, C_1- to C_4-alkyl, or C_6- to C_{10}-aryl and

R^4 and R^5 in addition independently of one another denote C_1- to C_{20}-alkyl-(C=O)-, C_3- to C_{10}-cycloalkyl-(C=O)-, C_2- to C_{20}-alkenyl-(C=O)-, C_6- to C_{10}-aryl-(C=O)-, C_1- to C_{20}-alkyl-(SO_2)-, C_3- to C_{10}-cycloalkyl-(SO_2)-, C_2- to C_{20}-alkenyl-(SO_2)-, or C_6- to C_{10}-aryl-(SO_2)-.

and dimensionally anisotropic side groups II are used wherein substituents and formula have the meanings defined in claim ~~6~~1, and in addition

Ar^1 denotes a radical of the formula (III),

Ar^2 denotes a radical of the formula (VI),

Ar^3 denotes a radical of the formulae (VII) or (V),

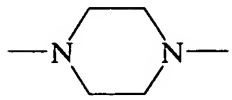
y denotes 1 or 2,

z denotes 0, 1 or 2 and

$X^{2'}$ and Ar^2 and/or $X^{3'}$ and Ar^3 may have different meanings if y and/or z denote 2,

A denotes O or S,

Q^1 ~~and Q^2 independently of one another~~ denotes -O-, -(N-R^5)-, -(C=O)-, -(O-CO)-, -(NR^5-CO)-, -(SO_2)-, -(O-SO_2)-, -(NR^5-SO_2-)-, -O-C_6H_5-COO- or a bivalent radical of the formula



T^1 ~~and T^2 independently of one another~~ denotes -$(CH_2)_p$-, wherein the chain may be interrupted by -O-, -NR^9-, or -$OSiR^{10}{}_2O$- and may be substituted by methyl,

S^1 ~~and S^2 independently of one another~~ denotes a direct bond, -O-, -S-, or -NR^9-

p denotes an integer from 2 to 8, in particular 2 to 4,

R^9 denotes hydrogen, methyl or ethyl,

R^{10} denotes methyl or ethyl,

R^{11} to R^{22} independently of one another denote hydrogen, halogen, cyano, nitro, C_1- to C_{20}-alkyl, C_1- to C_{20}-alkoxy, phenoxy, C_3- to C_{10}-cycloalkyl, C_2- to C_{20}-alkenyl, C_6- to C_{10}-aryl, C_1- to C_{20}-alkyl-(C=O)-, C_6- to C_{10}-aryl-(C=O)-,

C_1- to C_{20}-alkyl-(SO_2)-, C_1- to C_{20}-alkyl-(C=O)-O-, C_1- to C_{20}-alkyl-(C=O)-NH-, C_6- to C_{10}-aryl-(C=O)-NH-, C_1- to C_{20}-alkyl-O-(C=O), C_1- to C_{20}-alkyl-NH-(C=O)-, or C_6- to C_{10}-aryl-NH-(C=O)-,

X^4 denotes hydrogen, halogen, cyano, nitro, CF_3, CCl_3, -COO-C_1 to C_4-alkyl or $X^{4'}$-R^4,

$X^{1'}$, $X^{2'}$ $X^{3'}$ and $X^{4'}$ denote a direct bond, -O-, -(N-R^5)-, -C(R^6R^7)-, -(C=O)-, -(CO-O)-, -(CO-NR^5)-, -(SO_2)- or (SO_2-O)- and

R^4, R^5, R^6, R^7 and R^8 independently of one another denote hydrogen, C_1- to C_4-alkyl, or C_6- to C_{10}-aryl and

R^4 and R^5 in addition independently of one another denote C_1- to C_{20}-alkyl-(C=O)-, C_3- to C_{10}-cycloalkyl-(C=O)-, C_2- to C_{20}-alkenyl-(C=O)-, C_6- to C_{10}-aryl-(C=O)-, C_1- to C_{20}-alkyl-(SO_2)-, C_3- to C_{10}-cycloalkyl-(SO_2)-, C_2- to C_{20}-alkenyl-(SO_2)-, or C_6- to C_{10}-aryl-(SO_2)-.

8. (Previously presented) Process according to Claim 1, wherein the storage medium on which information is to be written has a light-active layer of a thickness between 0.05 and 1000 µm.

9. (Previously presented) Process according to Claim 1, wherein the storage medium that is used has an optical density at the wavelength of the writing laser of the light-active layer of between 0.3 and 20.

10. (Previously presented) Process according to Claim 1, wherein in the storage medium that is used a depression is produced as a change in the surface topography of the light-active layer, said depression preferably having a depth of at least 10 nm.

11. (Previously presented) Process according to Claim 1, characterised in that a

depression is produced in the storage medium having a width in one direction, measured on the original surface, of at least 10 µm.

12. (Previously presented) Process according to Claim 1, characterised in that the change in the surface topography of the storage medium is produced by laser light, preferably having wavelengths between 380 nm and 820 nm.

13. (Previously presented) Process according to Claim1, characterised in that the light has an intensity of between 150 µW and 100 mW and is focused on spots having a dimension (full half-value width) in a range between 10 nm and 8 µm.

14. (Previously presented) Process according to Claim 1, characterised in that information can be written on storage media whose carrier layer comprises a polymer; preferably a thermoplastic polymer, particularly preferably polycarbonate.

15. (Previously presented) Process according to Claim 1, characterised in that a signal deviation is written in the storage medium having at least a carrier/noise ratio of 20 dB.

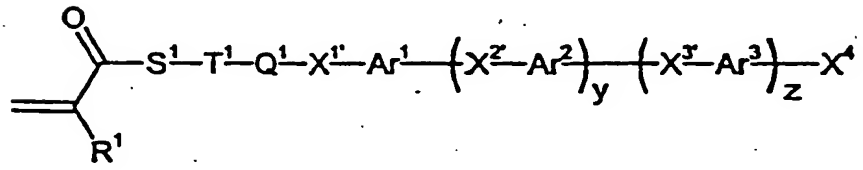
16. (Currently amended) Process according to Claim 1, wherein information can be written on storage media that contain, between the light active dye-containing layer and the ~~further~~ covering layer, an additional, light-reflecting layer, preferably from the group of metals comprising aluminum, silver, gold, particularly preferably from the group comprising aluminium and silver, and most particularly preferably aluminium.

17. (Previously presented) Process according to Claim 1, wherein the storage medium on which information is to be written has no reflecting layer.

18. (Previously presented) Process according to Claim 1, characterised in that the optical writing process is performed with polarised light of variable intensity,

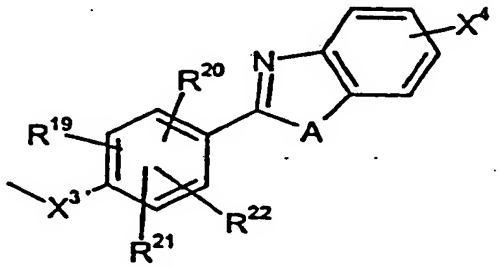
produced by a laser with an acousto-optical modulator or by modulation of a laser diode, and the polarisation state of the reflected light is detected in a polarisation optics system.

19. (Withdrawn) Monomers of the formula



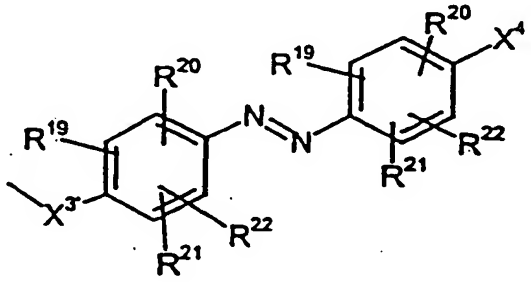
(Ia)

wherein R^1 denotes hydrogen or methyl and
the other radicals have the meanings defined in claim 6, and
$-(X^{3'}-Ar^3)_z-X^4$ denotes a radical of the formula



$X^{3'}$ denotes –N=N- or –CO-NH-.

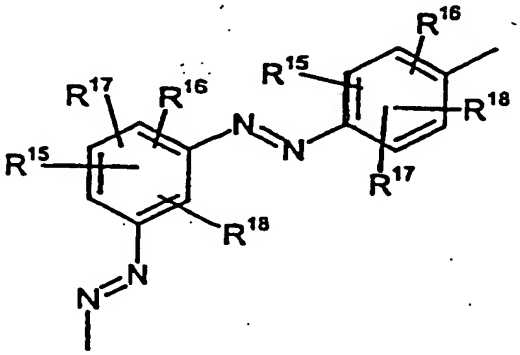
20. (Withdrawn) Monomers of the formula (Ia) according to claim 19, wherein
$-(X^{3'}-Ar^3)_z-X^4$ denotes a radical of the formula



$X^{3'}$ denotes -O-, -(SO_2)-, -(C=O)-, -(N-R^5)-, -(CO-NR^5)- or -C(R^6R^7)-.

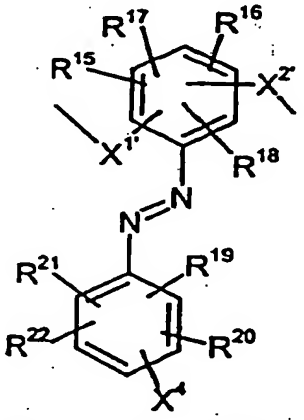
21. (Withdrawn) Monomers of the formula (Ia) according to claim 19, wherein

-($X^{2'}$-Ar^2)$_y$- denotes a bivalent radical of the formula



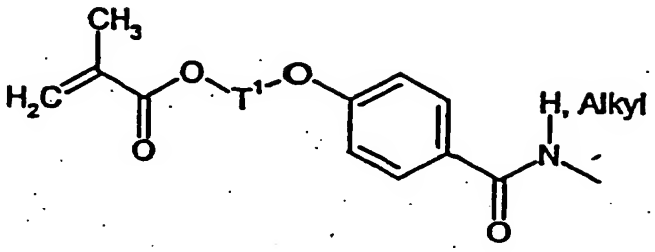
22. (Withdrawn) Monomers of the formula (Ia) according to claim 19, wherein

-($X^{1'}$-Ar^1)-$X^{2'}$denotes a bivalent radical of the formula



wherein $X^{1'}$ and $X^{2'}$ are in the m- or p-position relative to one another and $X^{1'}$ and the azo group are in the o- or p-position relative to one another.

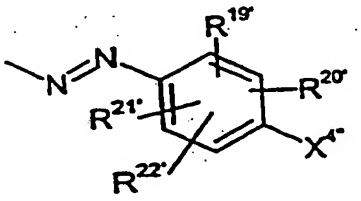
23. (Withdrawn) Monomers of the formula



$X^{2'}$ denotes –N=N- or –CO-NH-,

X^4 denotes hydrogen, C_1- to C_4- alkoxy, Di-C_1- to C_4-alkylamino, C_1-, to C_4-alkanoylamino, benzoylamino, cyano or nitro, wherein X^4 is particularly preferably in the p-position to the azo group,

R^{15} to R^{22} independently of one another denote hydrogen, methyl, methoxy or cyano, wherein one of the radicals R^{19} to R^{22} may denote a radical of the formula



which is particularly preferably in the m- or p-position relative to the azo group, in which

$X^{4''}$ denotes hydrogen, C_1- to C_4-alkoxy, Di-C_1- to C_4-alkylamino, C_1- to C_4-alkanoylamino, benzoylamino, cyano or nitro and

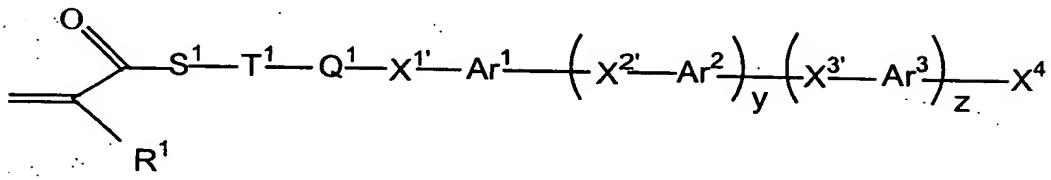
$R^{19'}$ to $R^{22'}$ independently of one another denote hydrogen, methyl, methoxy or cyano.

24. (Withdrawn) Polymers produced from monomers according to one or more of the preceding claims.

25. (Canceled)

26. (Canceled)

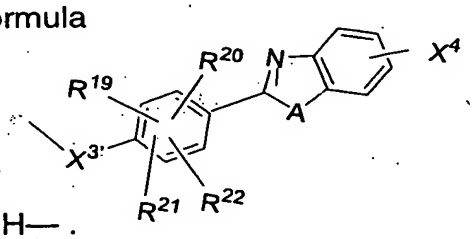
27. (Withdrawn) Monomers of the formula



(Ia)

wherein R^1 denotes hydrogen or methyl and the other radicals have the meanings as defined in Claim 7, and

$-(X^{3'}-Ar^3)_z-X^4$ denotes radicals of the formula



and $X^{3'}$ denotes —N=N— or —CO—NH— .

28. (Withdrawn) A method of using the monomers of claim 19 comprising producing an optical storage medium.

29. (Previously presented) The storage medium prepared by the method of Claim 18.